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10/13/1989

LANDAU
ASSOCIATES,
INC.
Geoenvironmental Engineering and Technologies

October 13, 1989

Mr. Neil Thompson
U.S. Environmental Protection Agency
Park Place Building
1200 Sixth Avenue
Seattle, WA 98101

RE: REPLACEMENT PAGES TO THE COLBERT LANDFILL REMEDIAL DESIGN/ REMEDIAL ACTION QUALITY ASSURANCE PROJECT PLAN

Dear Mr. Thompson:

Enclosed are two tables from the revised Colbert Landfill Remedial Design/Remedial Action Quality Assurance Project Plan (QAPjP) which we sent to you on September 28, 1989. The first table, Table QA-4.1, is a replacement for the original table which was printed without subscripts or superscripts; the old table should be discarded. The second table, Table QA-7.2, was inadvertently omitted and should be added behind page QA-7-3.

We have enclosed ten copies of each of the two tables to be distributed to reviewers of the revised QAPjP; five copies have been sent to Ecology.

We apologize for any inconvenience this may have caused you. If you have any questions concerning these tables or any other part of the QAPjP, please contact me at 509/328-3371 or Dean Fowler of the Spokane County Public Works Department at 509/456-3604.

Sincerely,

LANDAU ASSOCIATES, INC.

By:

Lawrence D. Beard, P.E.
Project Manager

LDB/kmo
No. 124-01.22
cc: Michael Blum, Washington State Department of Ecology
Dean Fowler, Spokane County Public Works Department
attachments: 10 copies of 2 replacement tables

P.O. BOX 1029 · EDMONDS, WASHINGTON 98020-1029 · (206)778-0907 · FAX (206)778-6409

TABLE QA-4.1

SAMPLE CONTAINERS, PRESERVATION, AND HOLDING TIMES

Matrix	Bottle[a] Code	Analyses	Sample Container	Preservation	Holding[b] Time
Ground Water	N	Sulfate	16 oz. plastic	Cool, 4° C	28 days
		Chloride			28 days
		Total Dissolved Solids			7 days
	A	Nitrate/Nitrite	8 oz. plastic	Cool, 4° C	14 days
		Hardness		H_2SO_4 to pH < 2	6 months
	S	Chemical Oxygen Demand	16 oz. glass	Cool, 4° C	28 days
				H_2SO_4 to pH < 2	
	O	Total Organic Carbon	100 mL glass Teflon-lined septum cap (leave no headspace)	Cool, 4° C H_2SO_4 to pH < 2	28 days
	V	Volatiles	2 ea - 40 mL glass vials (leave no headspace) Teflon-lined septum cap	Cool, 4° C	14 days
	M	Metals (Fe,Mn)	16 oz. plastic	HNO_3 to pH < 2	6 months
	X	Total Organic Halides	250 mL amber glass Teflon-lined septum cap	Cool, 4° C H_2SO_4 to pH < 2	14 days
Air	T	Volatile Organics	Charcoal tube	Cool, 4° C	7 days

(a) Bottle code to follow sample station number.

(b) Holding times are from date of collection. All samples will be shipped to the laboratory within 24 hours (except as noted for samples collected on Friday).

TABLE QA-7.2

METHODS AND DETECTION LIMITS FOR
ORGANIC CONSTITUENTS IN AIR

Analyte	Technique	Analysis Method		Quantification Limit
1,1,1-Trichloroethane	GC/FID	NIOSH[a]	1003	0.6 mg/sample
1,1-Dichloroethylene	GC/FID	NIOSH	1003	(b)
1,1-Dichloroethane	GC/FID	NIOSH	1003	0.4 mg/sample
Trichloroethylene	GC/FID	NIOSH	1022	0.5 mg/sample
Tetrachloroethylene	GC/FID	NIOSH	1003	(b)
Methylene Chloride	GC/FID	NIOSH	1005	0.3 mg/sample

(a) National Institute for Occupational Safety and Health Manual of Analytical Methods, August 15, 1987.
(b) Not stated in the method.

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